

RAFINESQUE, 1822. "ON THE TURTLES OF THE UNITED STATES" (REPTILIA, TESTUDINES): PROPOSED SUPPRESSION BY USE OF THE PLENARY POWERS.
Z.N.(S.) 2289

By Hobart M. Smith, David Chiszar and Rozella B. Smith
(Departments of Environmental, Population and Organismic
Biology (HMS, RBS) and Psychology (DC), University of Colorado,
Boulder, Colorado, 80309, U.S.A.)

In a seldom-noted article appearing in 1822 in a newspaper, Rafinesque listed the names of 12 "new species" of turtles, only one of which (*Monoclista kentukensis*) has ever been cited (apparently first by Schmidt, 1953: 94). As a junior synonym of *Terrapene carolina* (Linnaeus, 1758), that name has posed no problem and is not likely to do so in the future. Nine of the other names are clearly either *nomina dubia* or *nomina nuda*, and therefore are either not identifiable or not nomenclaturally available. The two others, never cited since their first appearance, are nomenclaturally available and sufficiently characterized as to be identifiable. Those two names (*Trionyx nasica* Rafinesque, 1822, and *Trionyx pusilla* Rafinesque, 1822) unfortunately antedate two others that have long been accepted as valid for their species (*Trionyx spiniferus* (LeSueur, 1827) and *Trionyx muticus* (LeSueur, 1827), respectively). As well used names, having been universally accepted in hundreds of works for over 100 years, the latter two names are actually not threatened by Rafinesque's *nomina oblita*, since application of the Law of Priority would obviously "disturb stability or universality or cause confusion" (Art. 23 a-b of the Amended Code) — indeed, it would do all three. The Amended Code requires maintenance of existing usage and referral of the case to the Commission for a decision under the plenary powers.

2. Rafinesque's article is here reproduced in full, with our annotations in brackets.

'For the Kentucky Gazette.

'The Cosmonist — No. XII.

'Within their shells the sluggish Turtles live. They crawl or swim; affording luscious food.

'On the Turtles of the United States.

'The turtles, often called by the Indian name of *Tarapen* in the United States, are a peculiar kind of harmless Reptiles, which afford delicious food, and their shells pretty ornaments.

'Linnaeus only knew eight species of turtles from the

United States, many new species were described by Schuepf [=Schoepff], Rose [=Bosc], Bartram, Lenieur [=LeSueur], etc. and I have myself discovered twelve new species: the total number now known is therefore increased to thirty-five.

Among these there are six species of Sea Turtles and eight Land Turtles. All the others are amphibious, living commonly in the freshwater, but often creeping on land.

I have called as follows my new species:

1. *Trionyx nasica*, Long-nose soft-shell Turtle.
2. *Trionyx pusilla*, Dwarf soft-shell Turtle.
3. *Emyda pugnax*, Fighting Tarapen.
4. *Emyda morstans*, Biting Tarapen.
5. *Emyda megalonyx*, Long-claw Tarapen.
6. *Emyda Striata*, Striped Tarapen.
7. *Emyda Semiradiata*, Radiating Tarapen.
8. *Emyda nodosa*, Knobby Tarapen.
9. *Emyda granularis*, Granulated Tarapen.
10. *Monoclista Kentukensis*, Kentucky Box Turtle.
11. *Lepidemy* [sic] *bifida*, Bifid Tarapen.
12. *Didicla erythropros*, Red-eye Tarapen.

I wrote in 1819 a Monography of these, and remarks on all the Turtles of the U. States, which was sent to the American Journal of Science, but not published: it has been since sent to Europe and published there. [If so it is unknown; we doubt the statement.]

The most important of these Turtles is the Long-nose Great Soft Shell, so common all over the western streams, and which reaches sometimes the weight of fifty pounds. It had been blended [i.e., confused] with the ferocious Turtle of the Southern States (*Tertudo* [sic] *ferox*) from which it is quite different. I was the first to ascertain that it belongs to the genus *Trionyx* of Geoffroy, to describe it and draw it correctly.

I will conclude by describing one of my new [column 4] species No. 10, found in Kentucky and called the Kentucky Box Turtle. It belongs to the genus *Monoclista* or Turtle with lower shell shutting like a box. It has some affinity with the Carolina Box Turtle, but is yet very different.

Upper shell 6 inches long, 4 broad, and 2 high; almost elliptical, very convex, deeply notched in front, slightly serrated and flattened behind, blackish with some yellow irregular spots. 13 central scales, the first and third with a flat ridge, 25 marginal scales, all the scales slightly striated in concentric waved small wrinkles. Lower shell 5 inches long, 3 broad, elliptical, blackish [sic] entire, concave behind,

shutting before, with 13 smooth scales.

'Head black with yellow dots, neck yellow with black dots, whitish beneath, cheeks flat, jaws horny entire; neck without scales, but flat horny warts.

'Limbs scaly, tail very short, forefeet yellow with black spots, 5 brown claws, toes united. Hind feet brownish above, pale beneath, four claws, toes soldered.

C.S. Rafinesque'.

3. The 'Long-nose Great Soft Shell', *Trionyx nasica* Rafinesque, is clearly *Trionyx spiniferus* (LeSueur, 1827), and the 'Dwarf soft-shell Turtle', *Trionyx pusilla* Rafinesque, is clearly *Trionyx muticus* (LeSueur, 1827). The characterizations, though brief, suffice to make the names available and to identify the species named. *Monoclista kentukensis* Rafinesque is amply characterized to justify acceptance as nomenclaturally available as well as referral to synonymy with *Terrapene carolina carolina* (Linnaeus, 1758). The nine other names are certainly unidentifiable, for the common names applied to them are either ambiguous or unintelligible. However, since the common names do provide some information, however minuscule and useless for identification, their associated scientific names might be construed as *nomina dubia* rather than *nomina nuda*, in which case they would be accepted as nomenclaturally available, although unidentifiable. This conclusion is consistent with acceptance of *Trionyx pusilla* as available, on no more information than common name; the distinction is that the common name for *pusilla* provides a diagnostic character that makes the species identifiable, whereas that is not the case for the others. Yet the amount of information is the same for all, and if one name can be regarded as thereby nomenclaturally available, all should be.

4. The most recent monograph of soft-shelled turtles of North America (Webb, 1962) does not mention either of Rafinesque's names in *Trionyx*, and they are not cited in his later reviews (1973a-d) of the same species. The most recent taxonomic review of the turtles of the world (Wermuth & Mertens, 1977) mentions only *Monoclista kentukensis*. The omission of Rafinesque's names is not a matter of exclusion of *nomina nuda* or *nomina dubia*, since all others known to these authors were cited.

5. Because of the ambiguity of status of all names (except *Monoclista kentukensis*) published in Rafinesque's account, it seems best to request that the entire work be suppressed for nomenclatural purposes. The one unambiguous name is of no conceivable utility in the future, and therefore no exception to preserve it alone is justified. It should, however, be pointed out that *Monoclista* was proposed anew by Rafinesque, 1832: 64, in which work he cited only *Testudo retziana* (*nomen novum* for *Testudo retzii* Daudin,

1802, = *Kinosternon scorpioides scorpioides* (Linnaeus, 1766) for the genus. As for 1832, therefore, *Monoclista* Rafinesque is an available nominal genus, and a junior synonym of *Kinosternon* Spix, 1824.

6. The ambiguity of status of Rafinesque's 1822 account is not only internal, however; it extends to the context of Art. 8 (2) of the Code, which requires that 'a work when first issued must be issued for the purpose of scientific, public, permanent record ...' The work was certainly a public record, but it was clearly not intended to be permanent, and few would construe it as scientific, though Rafinesque might have done so, since that newspaper, at that time, was noted for its scholarly essays. Few other outlets for such material then existed.

7. All factors considered, the simplest alternative to an otherwise potentially complex, lengthy and unrewarding consideration of the merits, status and identity of each of these 12 names is to declare the entire work unavailable for nomenclatural purposes.

8. We accordingly request the International Commission on Zoological Nomenclature:

- (1) to use its plenary powers to suppress for nomenclatural purposes the work by C.S. Rafinesque, 1822 entitled "On the Turtles of the United States" as published in the *Kentucky Gazette* (n.s. 1) vol. 36 (no. 21, May 23): 3 cols. 3-4 and to rule that no name acquires the status of availability by reason of having been published therein;
- (2) to place on the Official Index of Rejected and Invalid Works in Zoological Nomenclature the work by Rafinesque, 1822 rejected by use of the plenary powers in (1) above.

REFERENCES

- RAFINESQUE, C.S., 1822. On the turtles of the United States. *Kentucky Gazette*, (n.s. 1) 36 (no. 21, May 23): 3, cols. 3-4.
- _____, 1832. *Atlantic J. and Friend of Knowledge*, vol. 1: 64-65.
- SCHMIDT, K.P. 1953. *A check list of North American amphibians and reptiles*. Chicago, Univ. Chicago Press. viii, 280 pp.
- WEBB, R.G., 1962. North American Recent soft shelled turtles (Family Trionychidae). *Univ. Kansas Publ. Mus. nat. Hist.*, vol. 13 (10): 429-611, figs. 1-24, pls. 31-54.
- _____, 1973a. *Trionyx ater*. *Cat. Am. Amph. Rept.*, 137: 1, map.
- _____, 1973b. *Trionyx ferox*. *Ibid.*, 138: 1-3, map.
- _____, 1973c. *Trionyx muticus*. *Ibid.*, 139: 1-2, map.
- _____, 1973d. *Trionyx spiniferus*. *Ibid.*, 140: 1-4, map.
- WERMUTH, H. & MERTENS, R., 1977. Liste der rezenten Amphibien und Reptilien. Testudines, Crocodylia, Rhynchocephalia. *Das Tierreich*, vol. 100: i-xxvii, 1-74.